

REMARKS

Claims 1-50 currently remain in the application. Applicants respectfully request reconsideration in view of the following remarks.

Rejection under 35 U.S.C. § 103

Claims 1-50 were rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,742,820 to Perlman et al. (referred to herein as 'Perlman') in view of RFC 1195 entitled "Use of OSI IS-IS for routing in TCP/IP and dual environments" (referred to herein as "Callon"). Applicants respectfully traverse.

Perlman describes an efficient mechanism for synchronizing the content of node databases to ensure consistency. In col. 3, lines 40-57 (3:40-57), he notes that a CNSP required for synchronization can be very large. To reduce computational resources within routers, and to reduce bandwidth consumed by transmission of database information packets, Perlman generates database identifiers, which uniquely represent the contents of a database used to generate the identifier. He then sends a packet with an identifier (which takes less bandwidth) and compares a received identifier with a locally generated identifier (which consumes less computational resources at a router).

The identifier is a unique representation (3:67), such as that produced by an encryption algorithm (7:35-45). It does not include link state information (particularly dummy link state information); it is an encrypted number.

To remedy the omissions in the primary reference, the Office Action points to section B.2 of Callon to teach dummy link state information as recited. However, this portion of the Callon teaches coding structure for packet transmission and that "any codes in a received CNSP that are not recognized are ignored". First, the codes do not teach "dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node". The codes refer to protocol for specific fields used in a packaging header to standardize transmission. The codes are not remotely intended to describe link state information.

Thus, the art of record, even in combination, fails to teach all the limitations of the independent claims. In addition, extending the references to teach the present invention in an obviousness-type rejection violates use of a reference according to the MPEP.

Perlman's techniques cannot be extended to teach or suggest the present invention. More specifically, Perlman's use of an efficient identifier opposes the present invention. The identifier is a unique representation (3:67), such as that produced by an encryption algorithm (7:35-45). It is meant to conserve bandwidth and reduce complexity. Col. 3 lines 52-57 distinctly state the goals and objectives of Perlman. Adding extra steps and information to the packet, as would be done with the dummy link state information, thus i) would add bandwidth relative to the small identifier packets, and ii) increase complexity in checking for dummy link state information that is not in a database of the receiving node (hence why he does not remotely suggest doing so). A reference must be taken in its entirety, including those portions that teach away from the claims and argue against obviousness (MPEP 2141.02).

In addition, it is respectfully submitted that an obviousness rejection based on modification of a reference must result in an operable device. See MPEP 2143.01: "The proposed modification cannot render the prior art unsatisfactory for its intended purpose". More specifically, Perlman generates: a) an identifier based on database contents of the sending node and b) an identifier based on database contents of the receiving node. He then compares the two identifiers ($a=b$?). If they are the same, the two nodes are synchronized, and have been efficiently verified as such (his invention). If they are different, then he proceeds with the extra processing to fix the difference. Adding dummy link state information to the sending node identifier (a), which would never be in the first neighboring node (b), creates a situation where the computed identifiers would never be equal ($a=b$ would never happen). Thus, Perlman would always be performing extra processing, even when the databases are the same, if his methods were somehow adapted to include dummy link state information. This would destroy his simplified verification and synchronization process, and lead to an inoperable invention as taught by Perlman (efficient verification and synchronization).

Thus, the references fail to disclose all limitations in the independent claims, and the combination of references is improper in the context of the claimed invention. For at least these reasons, the independent claims are allowable.

Further, Callon also states that the "any codes in a received CNSP that are not recognized are ignored". Element 2 of the claim 1 recites: "receiving a second message from the first neighboring node, the second message referencing dummy link state information, the second message corresponding to an acknowledgement of receipt of the first message by the neighboring node". Even if Callon's codes were somehow extended to teach dummy link state information, the Section of Callon highlighted in the Office Action also conflicts with and

teaches away from the claimed invention, and cannot be used to support an obviousness-type rejection.

Independent claim 12 also recites "maintaining in persistent storage information identifying one or more neighboring nodes" and "restarting the routing control protocol, wherein restarting the routing control protocol clears a link state database". Page 4 of the Office Action points to 7:56 to 8:21 of Perlman to teach both of these elements. However, this portion of Perlman describes comparing identifiers (e.g., encrypted numbers). In particular, no mention is made of a routing control protocol, or restarting a routing control protocol as recited.

Therefore, Applicants respectfully submit that Perlman and Callon do not teach or suggest independent claims 1, 12, 19, 26, 37 and 44, and that the independent claims are allowable.

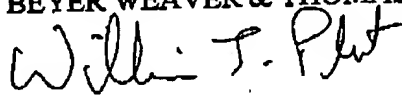
Claims 2-11, 13-18, 20-25, 27-36, 38-43 and 45-50 each depend either directly or indirectly from independent claims 1, 12, 20, 21, 24, 27 and 44 and are patentable over the art of record for at least the reasons set forth above with respect to the independent claims. For example, dependent claim 10 recites "wherein the dummy link state information references a non-existent network node". Page 3 of the Office Action again points to the same 7:56 to 8:21 of Perlman to teach this element. As mentioned above, this section teaches comparing identifiers.

Withdrawal of the rejection of under 35 U.S.C. § 103(a) is therefore respectfully requested.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Applicants hereby petition for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Response is to be charged to Deposit Account No. 50-0388 (Order No. CISC207).

Respectfully submitted,
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